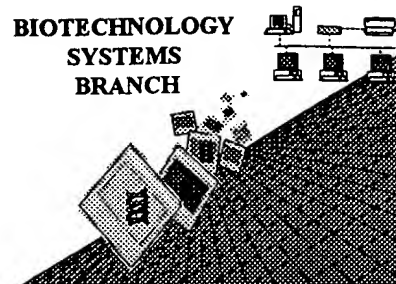


Waf

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/358,103A

Art Unit / Team No. : 1652

Date Processed by STIC: 10/27/99

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

MARK SPENCER 703-308-4212

R. Wax

1652

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103A

DATE: 10/27/1999
TIME: 14:29:59

Input Set: I358103A.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

pp. 1-4

Does Not Comply
Corrected Diskette Needed

1 <110> APPLICANT: Roca, Alberto I
2 <120> TITLE OF INVENTION: Mutants of MAW Motifs of RecA Protein Homologs, Methods
3 of Making Them, and Their Uses
4 <130> FILE REFERENCE: RecA Homolog Protein & Mutants
5 <140> CURRENT APPLICATION NUMBER: US/09/358,103A
6 <141> CURRENT FILING DATE: 1999-07-21
7 <150> EARLIER APPLICATION NUMBER: 60/094,071
8 <151> EARLIER FILING DATE: 1998-07-24
9 <160> NUMBER OF SEQ ID NOS: 3
10 <170> SOFTWARE: PatentIn Ver. 2.0
11 <210> SEQ ID NO 1
12 <211> LENGTH: 26
13 <212> TYPE: PRT
14 <213> ORGANISM: Escherichia coli
15 <220> FEATURE:
16 <221> NAME/KEY: NON_TER
17 <222> LOCATION: (1)
18 <220> FEATURE:
19 <221> NAME/KEY: NON_TER
20 <222> LOCATION: (26)..)
21 <220> FEATURE:
22 <221> NAME/KEY: HELIX
23 <222> LOCATION: (6)..(12)
24 <223> OTHER INFORMATION: Alpha-helix B
25 <220> FEATURE:
26 <221> NAME/KEY: STRAND
27 <222> LOCATION: (22)..(26)
28 <223> OTHER INFORMATION: Beta-strand 1
29 <220> FEATURE:
30 <221> NAME/KEY: SIMILAR
31 <222> LOCATION: (1)..(26)
32 <223> OTHER INFORMATION: This structure is highly conserved across
33 bacterial RecA and homologous eukaryotic,
34 archaeal, and viral proteins; sequence below is
35 from E. coli RecA positions 40-65
36 <400> SEQUENCE: 1
37 Ile Ser Thr Gly Ser Leu Ser Leu Asp Ile Ala Leu Gly Ala Gly Gly
38 1 5 10 15
39 Leu Pro Met Gly Arg Ile Val Glu Ile Tyr
40 20 25
41 <210> SEQ ID NO 2
42 <211> LENGTH: 26
43 <212> TYPE: PRT
44 <213> ORGANISM: Escherichia coli

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103ADATE: 10/27/1999
TIME: 14:29:59

Input Set: I358103A.RAW

45 <220> FEATURE:
46 <221> NAME/KEY: NON_TER
47 <222> LOCATION: (1)
48 <220> FEATURE:
49 <221> NAME/KEY: NON_TER
50 <222> LOCATION: (26)
51 <220> FEATURE:
52 <221> NAME/KEY: HELIX
53 <222> LOCATION: (6)..(12)
54 <223> OTHER INFORMATION: Alpha-helix B
55 <220> FEATURE:
56 <221> NAME/KEY: STRAND
57 <222> LOCATION: (22)..(26)
58 <223> OTHER INFORMATION: Beta-strand 1
59 <220> FEATURE:
60 <221> NAME/KEY: SIMILAR
61 <222> LOCATION: (1)..(26)
62 <223> OTHER INFORMATION: Non 'Xaa' residues are the invariant MAW-motif
63 residues in RecA and its homologs
64 <220> FEATURE:
65 <221> NAME/KEY: SITE
66 <222> LOCATION: (1)
67 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
68 and has observed to contain Ile, Phe, Met, ~~The~~ *invalid amino acid*
69 Val, Tyr, or Leu *designator*
70 <220> FEATURE:
71 <221> NAME/KEY: SITE
72 <222> LOCATION: (2)
73 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
74 and has been observed to contain Ser, Gly, Lys,
75 Pro, ~~The~~, or Arg
76 <220> FEATURE:
77 <221> NAME/KEY: SITE
78 <222> LOCATION: (3)
79 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
80 and has been observed to contain ~~The~~, Ser, or Trp
81 <220> FEATURE:
82 <221> NAME/KEY: SITE
83 <222> LOCATION: (4)
84 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
85 and has been observed to contain Gly, Arg, Ala,
86 Lys, Asn, or Gln
87 <220> FEATURE:
88 <221> NAME/KEY: SITE
89 <222> LOCATION: (5)
90 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
91 and has been observed to contain Ser, Ala, Cys,
92 Ile, Asn, Asp, or Phe
93 <220> FEATURE:
94 <221> NAME/KEY: SITE

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103ADATE: 10/27/1999
TIME: 14:29:59

Input Set: I358103A.RAW

95 <222> LOCATION: (6)
96 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
97 and has been observed to contain Leu, Ile, The,
98 Val, Tyr, Lys, Gln, Asp, Pro, or Arg *same error*
99 <220> FEATURE:
100 <221> NAME/KEY: SITE
101 <222> LOCATION: (7)
102 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
103 and has been observed to contain Ser, Ala, Asp,
104 Gly, Leu, Met, The, Val, Tyr, Glu, Asn, or Gln
105 <220> FEATURE:
106 <221> NAME/KEY: SITE
107 <222> LOCATION: (8)
108 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
109 and has been observed to contain Leu, Ile, Val,
110 Phe, or Met
111 <220> FEATURE:
112 <221> NAME/KEY: SITE
113 <222> LOCATION: (9)
114 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
115 and has been observed to contain Asp or Asn
116 <220> FEATURE:
117 <221> NAME/KEY: SITE
118 <222> LOCATION: (10)
119 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
120 and has been observed to contain Ile, Ala, Glu,
121 Gly, Leu, Asn, Gln, Arg, Ser, The, Val, Lys, or
122 Asp
123 <220> FEATURE:
124 <221> NAME/KEY: SITE
125 <222> LOCATION: (11)
126 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
127 and has been observed to contain Ala, Ile, Leu, or
128 Val
129 <220> FEATURE:
130 <221> NAME/KEY: SITE
131 <222> LOCATION: (12)
132 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
133 and has been observed to contain Leu, Met, or The
134 <220> FEATURE:
135 <221> NAME/KEY: SITE
136 <222> LOCATION: (13)
137 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
138 and has been observed to contain Gly, Gln, Ala,
139 Asn, or Ser
140 <220> FEATURE:
141 <221> NAME/KEY: SITE
142 <222> LOCATION: (14)
143 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
144 and has been observed to contain Ala, Ile, Ser,

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103A

DATE: 10/27/1999

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Input Set: I358103A.RAW

same

145 The, Val, Gly, or Leu, and this site is not
146 present in some homologs

147 <220> FEATURE:
148 <221> NAME/KEY: SITE
149 <222> LOCATION: (17)
150 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
151 and has been observed to contain Leu, Phe, Ile,
152 Val, Tyr, or Met

153 <220> FEATURE:
154 <221> NAME/KEY: SITE
155 <222> LOCATION: (18)
156 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
157 and has been observed to contain Pro, Glu, Met,
158 Phe, Gln, Arg, or Val

159 <220> FEATURE:
160 <221> NAME/KEY: SITE
161 <222> LOCATION: (19)
162 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
163 and has been observed to contain Met, Gly, Lys,
164 Arg, The, Ala, Pro, or Ser

165 <220> FEATURE:
166 <221> NAME/KEY: SITE
167 <222> LOCATION: (20)
168 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
169 and has been observed to contain Gly, Leu, Met,
170 Ala, His, Gln, or Arg

171 <220> FEATURE:
172 <221> NAME/KEY: SITE
173 <222> LOCATION: (21)
174 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
175 and has been observed to contain Arg, Gln, Ser,
176 Gly, The, or Val

177 <220> FEATURE:
178 <221> NAME/KEY: SITE
179 <222> LOCATION: (22)
180 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
181 and has been observed to contain Ile, Val, Ala,
182 Leu, or Met

183 <220> FEATURE:
184 <221> NAME/KEY: SITE
185 <222> LOCATION: (23)
186 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
187 and has been observed to contain Val, Ile, The, or
188 Tyr

189 <220> FEATURE:
190 <221> NAME/KEY: SITE
191 <222> LOCATION: (25)
192 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
193 and has been observed to contain Ile, Val, Ala,
194 Leu, Met, or Phe

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103A

DATE: 10/27/1999

TIME: 14:29:59

Input Set: I358103A.RAW

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195 <220> FEATURE:
196 <221> NAME/KEY: SITE
197 <222> LOCATION: (26)
198 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
199 and has been observed to contain Tyr, Phe, Ala,
200 Gly, or Val
201 <400> SEQUENCE: 2
W--> 202 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly
203 1 5 10 15
W--> 204 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa
205 20 25
206 <210> SEQ ID NO 3
207 <211> LENGTH: 26
208 <212> TYPE: PRT
209 <213> ORGANISM: Escherichia coli
210 <220> FEATURE:
211 <221> NAME/KEY: NON_TER
212 <222> LOCATION: (1)
213 <220> FEATURE:
214 <221> NAME/KEY: NON_TER
215 <222> LOCATION: (26)
216 <220> FEATURE:
217 <221> NAME/KEY: HELIX
218 <222> LOCATION: (6)..(12)
219 <223> OTHER INFORMATION: Alpha-helix B
220 <220> FEATURE:
221 <221> NAME/KEY: STRAND
222 <222> LOCATION: (22)..(26)
223 <223> OTHER INFORMATION: Beta-strand 1
224 <220> FEATURE:
225 <221> NAME/KEY: SIMILAR
226 <222> LOCATION: (1)..(26)
227 <223> OTHER INFORMATION: Non "Xaa" residues are the invariant and
228 semiconservative elements of the MAW motif in RecA
229 and its homologs
230 <220> FEATURE:
231 <221> NAME/KEY: SITE
232 <222> LOCATION: (2)
233 <223> OTHER INFORMATION: This site is neither invariant nor
234 semiconservative across RecA homologs and has been
235 observed to contain Ser, Gly, Lys, Pro, The, or
236 Arg
237 <220> FEATURE:
238 <221> NAME/KEY: SITE
239 <222> LOCATION: (5)
240 <223> OTHER INFORMATION: This site is neither invariant nor
241 semiconservative across RecA homologs and has been
242 observed to contain Ser, Ala, Cys, Ile, Asn, Asp,
243 or Phe
<220> FEATURE:

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Please
ensure
this error
is corrected
in subsequent
sequences.

same error

fyi

VERIFICATION SUMMARY
PATENT APPLICATION US/09/358,103A

DATE: 10/27/1999

TIME: 14:29:59

Input Set: I358103A.RAW

Line	Error/Warning	Original Text
202	W "N" or "Xaa" used: Feature required	Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa X
204	W "N" or "Xaa" used: Feature required	Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa
301	W "N" or "Xaa" used: Feature required	Ile Xaa Thr Gly Xaa Xaa Xaa Leu Asp Xaa A
303	W "N" or "Xaa" used: Feature required	Leu Xaa Xaa Gly Xaa Ile Val Glu Ile Tyr